

Application No.: 10/763,391

REMARKS

I. Introduction

In response to the pending final Office Action, Applicants have amended claims 1-4, 7, 9-11 and 13-16 in order to further clarify the subject matter of the present disclosure and to overcome the § 101 and § 112 rejections. No new matter has been added.

Applicants respectfully submit that all pending claims as currently amended are patentable over the cited prior art.

II. The Rejection Of Claims 7-9 and 16-20 Under 35 U.S.C. § 101

Claims 7-9 and 16-20 stand rejected under 35 U.S.C. § 101 as failing to have utility. It is alleged that claims 7-9 and 16-20 are not tied to another statutory class nor do they execute a transformation. In response, Applicants have amended claims 7 and 16 to show that the method involves a bill handling apparatus. As such, Applicants respectfully request that the § 101 rejections of claims 7-9 and 16-20 be withdrawn.

III. The Rejection Of Claims 16-20 Under 35 U.S.C. § 112

Claims 16-20 have been rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. It is alleged that the passage in claim 16 which recites "a second determination mode in which a bill determined as unidentified as a result of the first determination is automatically determined again in the same determining part set at the second determination accuracy without being handled by a customer" is new matter. In response, Applicants have deleted the term "automatically".

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In addition, claims 1-6 and 10-15 stand rejected under 35 U.S.C. § 112, second paragraph, for being indefinite. It is alleged that while the preamble of claims 1 and 16 refer to “a sheet handling apparatus” and “a bill handling apparatus” respectively, the body of the claims do not contain any limitations indicating the structure of the devices. In response, Applicants have amended claims 1 and 16 to recite structure of the two devices. As such, Applicants respectfully request that the § 112 rejections of claims 1-6, 10-15 and 16-20 be withdrawn.

IV. The Rejection Of Claims 1-20 Under 35 U.S.C. § 103

Claims 1-15 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kawakami (USP No. 4,769,532) in view of Zoladz, Jr. (USP No. 5,855,268); and claims 16-20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kawakami in view of Zoladz, Jr. and Negishi (USP No. 6,588,570). Applicants respectfully traverse this rejection for at least the following reasons.

As a preliminary matter, Applicants note that the Examiner has not properly addressed any of the arguments set forth in the previous Response with regard to claims 1-20. The statement on page 14 of the pending Office Action which states that Applicants arguments with respect to claims 1-20 have been considered but are moot in view of the new grounds of rejection. As it is clear that there are no new substantive grounds for rejection of claims 1-15, Applicants request clarification of this statement.

Furthermore, with regard to claims 1-20, the Office Action states that “[i]n response to Applicant’s argument, it is respectfully noted that as we understand, references are cited as they teach and suggest the concept of the invention, but not the actual invention the Applicant applied for. In view of this admission by the Examiner, Applicants submit that claims 1-20 are allowable

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over the cited prior art and as such, request acknowledgement therefor. In addition, for the record, Applicants submit that claims 1-20 are also allowable for at least the following reasons.

Claims 1-15

Independent claims 1 and 10 are directed a sheet handling apparatus. The apparatus defined by claim 1 requires a transport path that transports sheets to or from a deposit/drawal part, a detector to determine a characteristic of a sheet, an amplifier to amplify a signal from the detector, an A/D converter to convert the signal from analog signal to digital signal, a determination means to determine the truth of the sheet (in the case where the sheet is paper currency, determining whether the currency is genuine or determining the denomination of the currency), and a control part to change the read accuracy of the detector. According to the claim, if the truth of the sheet cannot be determined after an initial reading, the control part changes the settings of the detector and redirects the sheet back to the detector for an other reading, but under the new settings of the detector.

According to the Examiner, Kawakami discloses changing the amplification factor or resolution of a detector to increase the accuracy of determining the truth of a detected sheet. Applicant respectfully disagrees. As explained previously, Kawakami discloses adjusting optical sensors, but not in response to an unidentified reading of a sheet. The portions of Kawakami relied upon in the Office Action fail to disclose what is asserted by the Examiner. Figs. 5-10 of the reference do not show changing the amplification factor or resolution of the detector in response to an initial unidentifiable reading of a sheet. The disclosure at col. 4, lines 23-65 is directed to explaining Figs. 2 and 3, which not relied upon in the rejection. While the passage discloses that a signal from a phototransistor (detector) is inputted to an amplifier which amplifies an analog signal which is fed to an A/D converter to produce a digital signal that is sent

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to a CPU, there is no disclosure or suggestion that after receiving the signal, the CPU changes the settings of the detector and redirects the sheet back to the detector for another reading, but under the new settings of the detector, as required by claim 1. Moreover, Zoladz, Jr. fails to remedy the deficiencies of Kawakami.

Zoladz, Jr. is directed to an optical sensor system for a bill validator using LEDs. Zoladz, Jr. discloses a using a microprocessor to make continual LED current adjustments through a D/A converter. See col. 2 lines 30-51. According to Zoladz, Jr., the transport motor 18 is reversed and the bill is rejected, if the bill is not genuine (col. 3 lines 43-45). There is no disclosure or suggestion that the microprocessor changes the settings of the detector and redirects the bill back to the detector via transporter motor 18 for another reading, but under the new settings of the detector, as required by claim 1.

For all of the foregoing reasons, the Office Action does not establish a *prima facie* case of obviousness of claim 1 as well as claims 2-6 which are dependent on base claim 1. It is respectfully requested that the rejection of claims 1-6 be reconsidered and withdrawn.

Turning to independent claim 10, this claim is also directed to a sheet handling apparatus and comprises a transport path that transports sheets to or from a deposit/drawal part; a determining part that determines the truth of sheets transported by the transport path; a control part that changes accuracy to determine the sheets in the determining part; and a stocking part that temporary holds sheets determined as unidentified in the determining part, wherein, if the sheets are determined as unidentified in the determining part, the control part changes a determination condition so as to increase the determination accuracy of the determining part, and transports through the transport path the sheets determined as unidentified from the stocking part

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to the determining part again to determine the truth of the sheets under a changed condition of the accuracy in the determining part.

For the same reasons given with respect to claim 1, Kawakami and Zoladz, Jr., taken alone or in combination fail to present a *prima facie* case of obviousness for claim 10 as well as for the claims dependent thereon, namely, claims 11-15. It is respectfully requested that the rejection of claims 10-15 be reconsidered and withdrawn.

Claim 7 is directed to a method of determining bills in a bill handling apparatus, comprising the steps of (i) transporting through a transport path a bill to be deposited to a determining part of the bill handling apparatus to perform determination; (ii) detecting characteristics of the bill by a detection part of the bill handling apparatus; (iii) processing a signal from the detection part and determining a denomination and truth of the bill in a determination part of the bill handling apparatus; (iv) as a result of the truth determination, classifying the bill into one of at least four types of bills to process the bill, the four types of bills being true bills determined as true, false bills lacking characteristics indispensable to true bills, unidentified bills having characteristics indispensable to true bills but exceeding a permissible error thereof, and undefined bills the denominations of which cannot be determined; (v) if the bill is determined as an unidentified bill, changing an amplification factor or resolution of the detection part so as to increase accuracy to determine the bill; and (vi) after the change, transporting the unidentified bill through the transport path to the detection part again to detect the characteristics of the bill to perform the truth determination under changed conditions of the amplification factor or resolution of the detection part in the determining means.

For the same reasons given with respect to claim 1, Kawakami and Zoladz, Jr., taken alone or in combination, fail to disclose or suggest that after receiving the signal, the CPU

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changes the settings of the detector and redirects the sheet back to the detector for an other reading, but under the new settings of the detector, as required by claim 7. For this reason, the Office Action does not present a *prima facie* case of obviousness for claim 7 as well as for the claims dependent thereon. It is respectfully requested that the rejection of claims 7-9 be reconsidered and withdrawn.

Claims 16-20

The arguments presented *supra* with respect to the patentability of claims 1-15 over Kawakami and Zoladz, Jr. are equally applicable to this rejection and are incorporated herein by reference.

Independent claim 16 is directed to a method of determining bills in a bill handling apparatus and requires initially determining the denomination and truth of a bill are initially determined and if the bill is determined to be unidentifiable, the settings for determining accuracy of the bill are increased with respect to the first determination accuracy and the denomination and truth of the bill are determined again at the higher settings without being handled by a customer. Subsequently, bills that are unidentified or determined to be false are separated from other bills.

As discussed *supra*, Kawakami and Zoladz, Jr. taken alone or in combination do not teach this feature of the invention. It is alleged that Negishi remedies this deficiency in col. 4, lines 22+. Applicants respectfully submit that this allegation is incorrect.

In the above recited passage, Negishi teaches a first and second reference level for determining a bill in a bill handling apparatus. However, both of these reference levels are utilized for determining the insertion state of the bill. As is disclosed in col. 4, lines 42-45, "by

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the use of the first and second reference levels...the comparator 22 detects the above mentioned state and the controller judges the bill is inserted.” Thus, it is clear that Negishi fails to teach or suggest the limitation of claim 16 of setting a second determination accuracy as higher bill determination accuracy than the first determination accuracy if a bill is determined as an unidentified bill as a result of determination in the first determination mode.

For all of the foregoing reasons, the Office Action does not present a *prima facie* case of obviousness for claim 16. Under Federal Circuit guidelines, a dependent claim is nonobvious if the independent claim upon which it depends is allowable because all the limitations of the independent claim are contained in the dependent claims. *Hartness International Inc. v. Simplimatic Engineering Co.*, 819 F.2d at 1100, 1108 (Fed. Cir. 1987). Accordingly, as independent claim 16 is patentable for the reasons set forth above, it is respectfully submitted that all claims dependent thereon, claims 17-20, are also patentable. It is respectfully requested that the rejection of claims 16-20 be reconsidered and withdrawn.

V. Conclusion

Having fully responded to all matters raised in the Office Action, Applicant submits that all claims are in condition for allowance, an indication of which is respectfully solicited.

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To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

McDERMOTT WILL & EMERY LLP



Nathaniel D. McQueen
Registration No. 53,308

600 13th Street, N.W.
Washington, DC 20005-3096
Phone: 202.756.8000 NDM:MWE
Facsimile: 202.756.8087
Date: January 6, 2009

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